SCABIES (crusted or atypical and outbreaks)

1. **Agent**: *Sarcoptes scabiei*, a mite.

2. **Identification**:

   a. **Symptoms**: An infestation of the skin caused by a mite whose penetration of the skin is visible as papules or vesicles, or as tiny linear burrows containing the mites and their eggs. Lesions are prominent around finger webs, flexor surfaces of wrists, extensor surfaces of elbows, axillary folds, belt line, thighs, abdomen and lower portion of the buttocks. Lesions also may be found on external genitalia in men and on breasts and nipples in women. Itching may be intense, especially at night. For recurrent cases, rash and itching may occur over the entire body, not limited to sites of entry.

   Norwegian, atypical or crusted scabies are the terms used to designate a severe infection with the same mite that causes typical scabies. It is usually found in institutionalized patients, particularly those with developmental disabilities, and in individuals who are debilitated or immunosuppressed. Crusted scabies is characterized by unusual skin manifestations such as scaling or thickening suggestive of psoriasis. Thickened nails, alopecia, generalized hyperpigmentation, and pyoderma with lymphadenopathy also may occur. Itching may be reduced or absent, making diagnosis more difficult. It is highly communicable because of the large number of mites. The incubation period may be as short as several days.

   b. **Differential Diagnosis**: Contact dermatitis, allergic dermatitis, drug reaction, psoriasis, and pyoderma.

   c. **Diagnosis**: Microscopic demonstration of the mite, ova, or fecal matter obtained from a skin scraping and/or based on clinical signs and symptoms. A negative skin scraping does not conclusively rule out scabies infestation. Mites are easily recovered, however, in skin scrapings from persons with atypical or crusted scabies.

3. **Incubation**: Generally 4 to 6 weeks in primary infestation; but may be less than 1 week for subsequent infestations or following exposure to crusted scabies. The pruritic response to scabies is actually an allergic (IgE) phenomenon. Therefore, primary infestation is slow to become pruritic, while repeated infestation re-activates the immune memory in just a few days.

4. **Reservoir**: Humans. Other species of mites from animals may infest man but do not reproduce on humans.

5. **Source**: Infested human or fomite.

6. **Transmission**: Direct or indirect contact.

7. **Communicability**: Until mites and eggs are destroyed; potentially from date of contact through date of adequate treatment.

8. **Specific Treatment**: Topical scabicides: permethrin 5% (Elimite®) is considered the drug of choice. The usual adult dose is 30 grams. Treatment details vary with regular scabies versus crusted scabies; refer to package insert or Scabies Prevention and Control Guidelines Acute and Sub-Acute Care Facilities (7/09)

   Itching may persist for 1-2 weeks following successful treatment. One treatment with permethrin, properly applied, is usually curative. Ivermectin (Stromectol®) (administered in a single oral dose of 200 mg per kilogram) appears to be effective but is not as yet FDA-approved for this purpose.

REPORTING PROCEDURES

1. A single case of atypical/crusted scabies is reportable in Los Angeles County. If the atypical case is not in a health facility or under home health care, use:

   Report Form: **Outbreak/ Other Reportable Disease or Disease of Unusual Occurrence Form (CDPH 8554)**

2. Outbreaks (not in a health facility or under home health care) are reportable, *California Code of Regulations*, Section 2500.

   Report Forms: **Outbreak/ Other Reportable Disease or Disease of Unusual Occurrence Form (CDPH 8554)**.

3. A single case of atypical/crusted scabies in a healthcare facility (non-acute care) is defined as an outbreak.

   For outbreaks of scabies in healthcare facilities (non-acute care) use:

   Report Forms: CD Outbreak Investigation—Sub-Acute Health Care Facility (H-1164, Sub-Acute).

4. A single case of atypical/crusted scabies in an acute care hospital will be assessed by ACDC. Outbreaks of scabies in these facilities will be investigated by ACDC as all hospital outbreaks.

5. **Epidemiologic Data**:

   a. Date of onset.

   b. List of potential contacts.

   c. Immunocompromising condition(s).

   d. Hospitalization(s) within incubation period.

   e. Skilled nursing or home health care within incubation period.

   f. Outpatient care within incubation period.

   g. Other institutionalized care within incubation period.

   h. Previous treatment(s) for scabies, date(s), medication(s) prescribed.

CONTROL OF CASE, CONTACTS & CARRIERS

Investigate single cases of atypical (crusted Norwegian) scabies and known or suspected outbreaks of regular and crusted scabies. Initiate evaluation within 24 hours.

CASE:

1. **Isolation**:

   a. **Community**: Exclude from school, work, and public gatherings until adequately treated.

   b. **Healthcare facility or congregate living**: Maintain contact precautions/isolation until treatment is completed and/or case is determined by dermatology consultant or other experienced designee to be non-infectious.

2. Concurrently launder linen and clothing used or worn within 72 hours prior to treatment.

CONTACTS:

For individual cases of regular scabies, household members, roommates, care givers, and other direct contacts should be treated prophylactically.

For individual cases of atypical or crusted scabies, currently hospitalized and admitted from a skilled nursing facility or other group setting, and reported directly to Acute Communicable Disease Control, a written referral will be faxed or emailed to the appropriate District Public Health Nurse Supervisor with Area Medical Director notification, requesting an assessment of the facility residents and staff for prophylaxis and follow-up care.

If during the course of investigation of scabies in a skilled nursing facility or other group setting, a scabies case was transferred to an acute care hospital or other facility, ensure notification of the receiving facility.

For outbreaks of scabies, assess extent of potential spread and extend prophylactic treatment for scabies as appropriate.

INSTITUTIONAL OUTBREAKS:

Refer to Scabies Prevention and Control Guidelines Acute and Sub-Acute Care Facilities (7/09). A fillable sample line-listing form is available in this guideline and also attached at the end of this chapter.

PREVENTION/EDUCATION

1. Emphasize recognition of early signs and symptoms of infestation and the importance of appropriate treatment, and increase awareness of atypical presentations of scabies.

2. Stress proper laundering of linen in hot water for at least 10 minutes and clothing worn 72 hours prior to treatment. Dry clean or place non-washable items in tightly closed plastic bag for at least 7 days.

3. For community settings, issue Prevention and Control Guidelines Acute and Sub-Acute Care Facilities (7/09)-Appendices D and E.

4. Issue Scabies Prevention and Control Guidelines Acute and Sub-Acute Care Facilities (7/09) if appropriate.

DIAGNOSTIC PROCEDURES

Skin scraping. The procedure is described in Scabies Prevention and Control Guidelines Acute and Sub-Acute Care Facilities (7/09)- Diagnosis of Scabies by Skin Scraping (Appendix A).